ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

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An Introduction to Water Use Management and Water Efficiency Practices

Water is essential to all life on our planet. Surface and ground waters support a variety of human uses including drinking, irrigation of crops and landscape, industrial processes, domestic applications, and recreation.

Historically, residents have thought that New Hampshire was water rich and that conservation was something only people in arid states needed to practice. However, that perception must change. As Ben Franklin said, "When the well's dry, you know the worth of water," later paraphrased by Rowland Howard as "You never miss the water 'til the well runs dry." In some parts of the state, wells have indeed gone dry. Water levels in some New Hampshire lakes, ponds, aquifers and streams have dropped, largely due to over-mining of groundwater supplies. When private and public water wells withdraw more water than the aquifer that supplies them can provide, recharge is pulled from surface waters. This condition can have serious impacts on both public health and the economy.

Federal regulations applicable to public drinking water quality have become progressively more stringent. Raw water that once met federal drinking water quality standards is no longer considered potable, and public water suppliers are faced with the increasing chemical, energy and waste disposal costs of treating raw water. This increase is passed along to their customers in the form of higher rates.

Groundwater supplies are more frequently experiencing quantity deficits. Many private and community wells in New Hampshire have been deepened, replaced, or abandoned due to dwindling production. This decline can be attributed to the stress of escalating housing and industrial development and periodic near-drought conditions. However, drilling more or deeper wells will not solve long-term water availability problems. This does not mean New Hampshire residents have to do without adequate water. It simply means that we need to adopt more efficient ways of using water.

Other less water-rich states have practiced water efficiency methods for decades. Hundreds of water efficient products are now available. Water efficiency management techniques have also been developed including water use and conservation audits, water fixture retrofitting, irrigation scheduling, xeriscape, and water supply maintenance programs.

Water efficiency practices are proven to save valuable water resources and protect the environment. One of the great side benefits of these practices is the simple fact that they save

money. Even though the initial cost of replacements or retrofits might be high, most water users find the water-related savings result in a surprisingly short payback period.

Water Efficiency Success Stories

A restaurant in Austin, Texas replaced a water-cooled icemaker with an air-cooled one and saved enough in water and sewer costs to realize a one-month payback on their initial expenditure. (Vickers, 2001) Although not all payback periods are this spectacular, depending upon water, sewer and energy charges, cost recovery periods are often less than a year.

Even homeowners can realize astounding savings. One New Hampshire household reported replacing a dripping kitchen faucet and reaping a $30 drop in the monthly electricity bill. The payback period on the new faucet was less than two months.

One of the most water-intensive uses is lawn and landscape irrigation. A single lawn sprinkler operating at five gallons per minute for half an hour uses as much water as 60 low-flow toilet flushes. That's two weeks worth of bathroom visits for an average family.

These are just a few examples of how practicing water efficiency can benefit you substantially. To help you save money and protect the environment and New Hampshire's valuable drinking water supplies, the New Hampshire Department of Environmental Services has created a series of fact sheets on water efficiency practices and conservation techniques. These fact sheets are characterized by the type of water use and are listed in the following table with cross-referencing to different users associated with the category.

For Additional Information

Please contact the Drinking Water and Groundwater Bureau at (603) 271-2513 or dwgbinfo@des.state.nh.us or visit our website at www.des.nh.gov/dwgb. All of the bureau's fact sheets are on-line at www.des.nh.gov/dwg.htm.

Note: This fact sheet is accurate as of January 2007. Statutory or regulatory changes, or the availability of additional information after this date may render this information inaccurate or incomplete.

References:

_____, *MRI Water Conservation Technical Bulletin #1, Water Conservation Best Management Practices General Practices and References*; New England Interstate Water Pollution Control Commission, Wilmington, MA; 1996.
Vickers, Amy; *Handbook of Water Use and Conservation*; WaterPlow Press, Amherst, MA; 2001; pp 2-9, 276.